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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,642	03/11/2002	Martin Hartung	1860/50916	9210

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CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

LEWIS, RALPH A

ART UNIT	PAPER NUMBER
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3732

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DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,642

Applicant(s)

HARTUNG, MARTIN

Examiner

Ralph A. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 18-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 24.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Abstract Missing

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Objections to the Specification

The specification is object to under 37 CFR 1.77(c) which requires section headings for the different sections of the specification.

Rejections based on 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 18 (as well as throughout the application), the terminology "entrance orifice" when referring to the end of light conducting fiber/rod 18 is unconventional and appears to be a poor translation. The term "orifice" is typically used in reference to an opening. There are no physical openings in light conducting fibers/rods.

Additionally in claim 18, it is unclear which of the "plurality of light-emitting elements" referred to in line 3, is "the light emitting element" of line 7.

Claim 27 appears to contradict parent claim 18 which requires the light-emitting elements to be on different planes.

In claim 36, it is unclear what objectively ascertainable structural limitations applicant is intending to impose on the claimed apparatus with a limitation directed solely to its intended use.

Rejections based on Prior Art

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

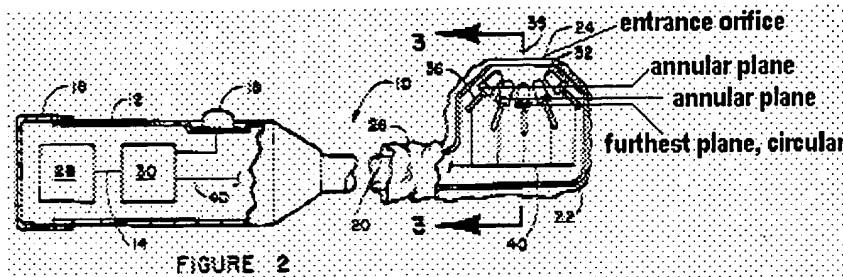
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18-24, 27 and 36-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Osterwalder et al (US 6,102,696).

Note the identified structure below in Osterwalder et al Figure 2. In regard to the limitation that each light-emitting element have a "light cone", "aperture" and "optical axis," it is noted that applicant discloses conventional packaged diodes just as Osterwalder et al does and thus it is presumed that the Osterwalder et al packaged

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diodes also meet the limitations. In regard to the "light conducting unit limitation" window 24 of Osterwalder et al conducts light.



The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25, 28, 33, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osterwalder et al (US 6,102,696).

The specifically claimed angles, distances, and number of diodes all would have fallen well within ranges one of ordinary skill in the art would have found to be obvious in the routine practice of the Osterwalder et al invention. In regard to claim 28, the use of conventional diodes would have been obvious.

Claims 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osterwalder et al (US 6,102,696) in view of Kennedy (US 5,420,768).

Osterwalder et al lack the thermal connection of the LEDs and the optical fiber rod as required in the present claims. Kennedy, however, teaches that such features are well known and conventional in dental LED curing devices. Thermal connections, i.e. heat sinks, as that disclosed by Kennedy at 15 are important for drawing heat away from the LEDs to keep them from over heating and light conducting rods are beneficial for conducting the light into the patient's mouth where the work is being performed. To have used heat sinks with the Osterwalder et al LEDs to keep them from overheating and using a conducting rod to more easily direct the light to the patient's mouth would have been obvious to one of ordinary skill in the art in view of the teachings by Kennedy.

Allowable Subject Matter

Claims 30-32 would be allowable if rewritten in independent form to include all of the limitations of the claims from which they depend and to overcome the rejections based on 35 U.S.C. 112 above.

Prior Art

Applicant's information disclosure statements of March 11, 2002, June 11, 2002 and January 02, 2003 have been considered an initialed copy enclosed herewith.


Cao (US 6,331,111) and Kert (EP 1 138 276) are made of record.

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Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(703) 308-0770**. Fax (703) 872-9302. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Kevin Shaver, can be reached at (703) 308-2582.

R.Lewis
September 26, 2003



Ralph A. Lewis
Primary Examiner
Au 3732